

Applicant : Leonard Guarente et al.  
Serial No. : 09/461,580  
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Attorney's Docket No.: 13407-016001 / MIT 8503



REMARKS

Applicants hereby submit that the enclosures fulfill the requirements under 37 C.F.R. §1.821-1.825. The amendments merely insert sequence identifiers in the specification and replace the original Sequence Listing with an amended substitute Sequence Listing. The substitute Sequence Listing contains the amino acid sequences "TLGL" and "FGGG" disclosed at page 63 of the specification, now SEQ ID NOs:36 and 37, respectively. No new matter has been added.

Attached hereto is a marked-up version of the changes made to the specification by the current amendment.

Please apply any charges or credits to Deposit Account No. 06-1050, referencing attorney docket number 13407-016001.

Respectfully submitted,

Date: \_\_\_\_\_

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A handwritten signature in black ink, appearing to read "Louis Myers", written over a horizontal line.  
Louis Myers  
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**“Version With Markings to Show Changes Made”**

In the specification:

Paragraph beginning at page 63, line 4, has been amended as follows:

TBLASTN searches were performed on the NCBI mouse EST sequence databases, using the amino acid sequence of ySir2p. All mouse EST sequences homologous to ySir2p were classified into three groups termed  $\alpha$ ,  $\beta$ , and  $\gamma$ , based on the homology results from the searches. Three representative EST cDNA clones were purchased for three mouse homolog groups from Genome Systems Inc (St. Louis, MO): AA199012 for  $\alpha$ , AA105536 for  $\beta$ , and AA260334 for  $\gamma$ . The cDNA clones were partially or completely sequenced. All deduced amino acid sequences were aligned with the Clustal X program. To cover each core domain completely, amino acid sequences of AA137380 and AA212772 for  $\beta$  and  $\gamma$  respectively, were also used. A phylogenetic tree of the core domains of the yeast and mouse *Sir2* families was generated with the Clustal X and NJPLOT program by using the following amino acid sequences: position 228-499 for ySir2p, 174-440 for yHst1p, 1-251 for yHst2p, 26-315 for yHst3p, 65-343 for yHst4, 215-460 for mSir2 $\alpha$ , TLGL (SEQ ID NO:36) to LINKEK (SEQ ID NO:32) for mSir2 $\beta$ , and FGGG (SEQ ID NO:37) to LINRDL (SEQ ID NO:33) for mSIR2 $\gamma$ .